

**REMARKS**

Reconsideration of the subject application is respectfully requested in light of the comments which follow. Claims 13-32 are pending.

***CLAIM REJECTIONS UNDER 35 U.S.C. §102***

Claims 13, 15-17, 21, and 26-32 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,980,988 to Ljungberg (hereafter "*Ljungberg*") on the grounds set forth in paragraph 2 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

To anticipate a claim, the reference must teach every element of the claim. See MPEP § 2131. For example, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987). Here, the rejection is traversed because the cited reference does not teach every element of the claim.

For example, the *Ljungberg* patent discloses deposition of  $\text{Al}_2\text{O}_3$  "by a controlled sequencing of the reactant gases, i.e., the gases enter the reactor in the following order:  $\text{CO}_2$ , CO and  $\text{AlCl}_3$ ." (col. 4, lines 9-11) Also, disclosed is adding "a sulphur-flourine-containing gas mixture . . . to the reaction mixture, preferably  $\text{SF}_6$ , . . . other possible additives are:  $\text{H}_2\text{S}+\text{F}_2$ ,  $\text{H}_2\text{S}+\text{HF}$ ,  $\text{SF}_4$ ,  $\text{CF}_4+\text{H}_2\text{S}$ , etc." (col. 4, lines 16-20) Finally, the *Ljungberg* patent discloses that a "reaction gas mixture comprising  $\text{CO}_2$ , CO, and  $\text{AlCl}_3$  was sequentially added to the hydrogen carrier gas in given order." (col. 4, lines 46-48)

In contrast to the disclosure in the *Ljungberg* patent, independent claim 1 recites that the method comprises "initiating nucleation of the  $\alpha$ -alumina layer on the surface by first introducing HCl and CO<sub>2</sub> gasses into the atmosphere, then introducing AlCl<sub>3</sub> gas into the atmosphere."

Comparing the disclosure in the *Ljungberg* patent to the claims of the present application at issue here, the *Ljungberg* patent does not disclose the presently claimed method including the sequence of gasses introduced into the atmosphere to initiate nucleation of the  $\alpha$ -alumina layer. In light of at least this difference, Applicant respectfully submits that an anticipatory rejection is improper since the *Ljungberg* patent does not teach all of the elements of the claim. See MPEP § 2131.

#### **ALLOWABLE SUBJECT MATTER**

Applicants note with appreciation the indication that claims 14, 18-20 and 22-25 would be allowable if rewritten in independent form as noted in paragraph 3 of the Official Action. By the present Response, it is respectfully asserted that all of the pending claims are allowable over the cited references.

**CONCLUSION**

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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